News release

10 August 2007

The forecast for 2014...

Climate scientists at the Met Office Hadley Centre will unveil the first decadal climate prediction model in a paper published on 10 August 2007 in the journal *Science*. The paper includes the Met Office's prediction for annual global temperature to 2014.

Over the 10-year period as a whole, climate continues to warm and 2014 is likely to be 0.3 °C warmer than 2004. At least half of the years after 2009 are predicted to exceed the warmest year currently on record

These predictions are very relevant to businesses and policy-makers who will be able to respond to short-term climate change when making decisions today. The next decade is within many people's understanding and brings home the reality of a changing climate.

The new model incorporates the effects of sea surface temperatures as well as other factors such as man-made emissions of greenhouse gases, projected changes in the sun's output and the effects of previous volcanic eruptions — the first time internal and external variability have both been predicted.

Team leader, Dr Doug Smith said: "Occurrences of El Nino, for example, have a significant effect on shorter-term predictions. By including such internal variability, we have shown a substantial improvement in predictions of surface temperature." Dr Smith continues: "Observed relative cooling in the Southern Ocean and tropical Pacific over the last couple of years was correctly predicted by the new system, giving us greater confidence in the model's performance".

Notes

- Total global warming, on a decadal average, is 0.8 °C since 1900 (IPCC 2007)
- 1998 is the current warmest year on record with a global mean temperature of 14.54 °C

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